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North–South research collaborations: An empirical evaluation against principles of transboundary research

Shelley Kotze[1,2] | **Mirek Dymitrow**[1,2,3]

[1]Mistra Urban Futures, Chalmers University of Technology, Gothenburg, Sweden

[2]University of Gothenburg, Gothenburg, Sweden

[3]Lund University, Lund, Sweden

Correspondence
Shelley Kotze, Box 625, 405 30 Gothenburg, Sweden. Email: shelley.kotze@geography.gu.se

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Abstract

Motivation: Transboundary research collaborations (TRCs) are critical in supporting evidence-based actions to address complex global issues, yet there remains a lack of empirical knowledge that would detail how TRCs are organized, how activities are facilitated, and how actors interact.

Purpose: We address this knowledge gap by evaluating a North–South TRC against the 11 principles for TRCs defined by the Commission for Research Partnerships with Developing Countries (KFPE).

Methods and approach: Using personal accounts, content analysis, and semi-structured interviews/surveys, our evaluation casts light on how the process of running a TRC in the 21st century is enacted from the perspective of the individual.

Findings: Our results and discussion provide the basis for a more probing and systematic case for and against contemporary TRCs, their underlying value structures and ways of working, as well as the dimensions that are lacking.

Policy implications: Evaluation of TRCs must include the experience of all the actors involved in the TRC and not only the outcomes they produce; transdisciplinarity cannot be viewed as the only way to solve general development issues, but must be carefully considered in order not to mask underlying issues of inequality and poor ethics; and the ring-fencing of funding for a specific purpose or TRC does not negate the need to scrutinize the activities that are undertaken in the name of the TRC.

KEYWORDS

geographies of research culture, North–South, qualitative evaluation, transboundary research collaboration, transdisciplinarity

1 | INTRODUCTION

Collaboration is the process of two or more actors working together to achieve a common goal. As collaborations can often exert more leverage and impact recognition in competing for finite resources (Wagner & Leydesdorff, 2009), they are usually the source of and propeller for a vast variety of innovative research. Given that pursuits for innovation span scientific communities, disciplines, and geographical locations, contemporary research collaborations are often transboundary. The Swiss Commission for Research Partnerships with Developing Countries (KFPE)[1] (2012) defines transboundary research collaborations (TRCs) as "a specific form of the global collaborative research effort [that] encompass research partnerships which cross economic, social, and cultural borders or divides."

TRCs form one of the backbones of international development, but they are a complex phenomenon. Although most development scholars agree with the use of TRCs in principle, their practical implementation has been difficult, the sources of funding still determining decision-making and division of labour (Carbonnier & Kontinen, 2014). Unsurprisingly, many academic debates on TRCs have addressed the underlying dynamics of such collaborations (see Ishengoma, 2016; Jentsch, 2002), including how equitable TRCs are in practice, and how to include the voices and experiences of partners, actors, and stakeholders from the Global South.

To address these questions, a vast theoretical literature has developed on how TRCs *should* be organized, how academics and practitioners *should* (inter)act in facilitating TRCs, and how TRC-based activities *should* be better facilitated. Conversely, there are few examples of TRC systems that detail how transboundary collaborations *are* organized, how academics and practitioners *do* interact, and how activities *are* facilitated (e.g., Fransman et al., 2021; Kontinen & Nguyahambi, 2020a, 2020b; White, 2020). Put differently, "if we don't know what people do and what they think about their work, we will never be able to create a deeper understanding of the project, its rationale and future impact" (Dymitrow & Ingelhag, 2020). As Carbonnier and Kontinen (2014) acknowledge, the social relationships within TRCs have not been explicitly addressed, despite their immense impact on the perceived success of any given TRC. This evaluation seeks to address this gap through a case-based in-depth evaluation of the concept of TRC through the lens of the individuals involved.

We do so by evaluating our TRC against the framework of guiding principles developed by the Commission for Research Partnerships with Developing Countries (KFPE, 2012). Although there are numerous sets of guiding principles (e.g., Binka, 2005; Castilla, 1997; Jentsch, 2002), KFPE's principles are some of the most adhered to within TRCs. Given their weight and widespread usage they have also guided this research.

The article focuses on one example of a TRC, which we shall call "the platform." In 2012, the platform was designed as an exchange project for PhD students between a university in Northern Europe and another in East Africa, before developing into a collaboration programme with the overall aim of contributing to sustainable urban development in each geographical context (see Onyango et al., 2021). The platform's novelty lay in its funding arrangements, whereby funds were ring-fenced for TRCs within a larger project on sustainability. The platform encountered difficulties, however, with its financing and administration that had not been experienced within the larger sustainability project. Furthermore, the platform has not undergone any type of evaluation beyond the reporting of outputs or that focuses on the experiences of the actors involved. The aim of this article is thus to make an empirical exploration of the inner workings of the platform by looking into its structure, actor dynamics, and activity facilitation. It identifies the most conspicuous challenges in using the KPFE as an evaluative framework within a critical and in-depth case-study approach.

We begin by providing a historical and theoretical context for the development of TRCs in Section 2 before highlighting three sets of guiding principles, which have been developed to assist in the development and running of TRCs. In Section 3, KFPE's 11 principles are then introduced as the principal analytical framework

[1]The Swiss Commission for Research Partnerships with Developing Countries (KFPE) seeks to promote efficient, effective, and equitable research with low- and middle-income countries, and in doing so, to contribute to sustainable development and solving global problems.

for the case-study collaboration, the platform. After explaining the adopted methodology (Section 4), we present the combined results and analysis of the authors' two-year explorative phase and the corroborative phase of the study in Section 5. A discussion follows in Section 6, which draws out three issues—of method, gender, and authorship—which are not comprehensively covered within the KFPE's principles. Finally, the conclusion (Section 7) goes beyond the specific case study and makes three policy recommendations for those initiating TRCs in the future.

2 | THEORETICAL FRAMEWORK

As this article revolves around the still popular, yet controversial terms "North–South" and "transboundary research collaborations," we should clarify from the outset how we understand and use them for the purposes of this study.

The term "North–South" has two main uses: to geographically describe countries on either side of the equator; and to indicate a divide based on the spread of wealth, with the North representing rich nations and the South poor(er) nations (Maringe & de Wit, 2016). These terms are not discrete, however (Bradley, 2008), with actors and institutions eluding or moving between these categorizations. The terms (global) North and (global) South have been criticized for being geographically incorrect in relation to gross domestic product (GDP) and purchasing power parity (PPP) per capita, where neither sphere is monolithic or hermetic (e.g., Australia and New Zealand as compared to Ukraine and North Macedonia). Moreover, globalization has largely displaced the North–South divide as a viable theoretical underpinning of the development efforts of international institutions—such as the International Monetary Fund (IMF), World Bank, or World Trade Organization (WTO). Lastly, the division is stigmatizing by upholding a discourse of inadvertent victimization that may impede fresh outlooks on sound development that depart from current preconditions and contextual factors (e.g., the success of post-genocide Rwanda) (Boshoff, 2010; Bradley, 2007; Eriksson Baaz, 2005; Gallwey & Wilgus, 2014; Haysom et al., 2019; Lewis, 1998; Menon, 2018). Despite these problems, the term North–South continues to be viable in a third sense, beyond geographic and economic terms, namely in terms of power. This third meaning introduces a relational aspect (Connell, 2007), which is particularly visible in the way North–South partnerships are understood in contemporary collaborations. This is also how we understand it here.

The term "transboundary research collaborations," in its basic sense, implies collaborations regarding research that go beyond conventional boundaries, be they national, social, or cultural, or that cut across domains such as expertise, discipline, and experience (Bradley, 2008; Carbonnier & Kontinen, 2014; KFPE, 2012; Maringe & de Wit, 2016). Hence, while the term TRC is not restricted to the North–South context, it conforms with the analytical focus of this study—namely, the hidden power relations that are still most prominent in collaborations where the historical North–South dimension is present (in this case between universities in Sweden and Kenya). In terms of the forms of collaboration, there are innumerable research agendas tackled by the "North" or the "South" (Bradley, 2008), including academic networks, training schemes, PhD student exchanges, institutional twinning, and joint project funding arrangements. Accordingly, many authors attribute different meanings to partnerships, collaborations, networks, and co-operation. As we use KFPE's 11 principles for TRC, our use of the term TRC refers to any form of collaboration which crosses a power boundary, be it geographical, historico-cultural, or socioeconomic.

It is widely acknowledged that TRCs are critical in supporting evidence-based actions to address global issues, such as knowledge production, mutual learning, and sustainable development. The trend of TRCs, although originating in the mid-20th century, is still recognized as the "right" way for academics to address global issues (Castilla, 1997; Gaillard, 1994; Jentsch, 2002). We therefore begin our discussion about TRCs with an account of the state of the art in relation to the subject, including the benefits and challenges they face. We then take a step back to look at the development of TRCs and the principles that steered their development.

2.1 | Why transboundary research collaborations?

Contemporary TRCs often involve universities or research institutions from the Global North and Global South working together to study a particular set of issues through a variety of activities, including joint research, staff and student exchanges, networking, publishing, and policy advocacy. Through these activities, collaborators from the Global North and Global South can pool their resources and share knowledge from a great diversity of localities, disciplines, and knowledge bases.

The case for adopting TRCs has been grounded on the assumptions of efficiency, effectiveness, relevance and sharing of responsibilities, synergies, and mobilizing an awareness of science to address problems of poverty (Castilla, 1997). Furthermore, TRCs are important for developing research capacities and capabilities, thus generating the knowledge production required to bring about global socioeconomic development (Baud, 2002). As such, the aim of contemporary TRCs is twofold: (1) to identify and solve issues regarding sustainable development in the Global South through the building of the capacity of stakeholders in their local context; and (2) to provide benefit to the Global North through knowledge exchange and the development of new perspectives (Dodson, 2017).

Critiques of the TRC approach have included the questioning of how the process of knowledge co-production and co-creation operates within research realities (Schmidt & Pröpper, 2017), how the distribution of power can affect the outcomes of TRCs, and how structural asymmetries, unspoken assumptions and operational constraints may have an impact on equity within such collaborations (Bleck et al., 2018). Furthermore, there are complex challenges that originate in the funding structures, which present a challenge for such TRCs when attempting to ensure that the collaborations are non-hierarchical, built on mutual understanding and trust, and reflect the different values and priorities of the collaborators.

2.2 | The guiding principles of transboundary research collaborations

The forerunners to the TRC movement were countries with a colonial past, which already had networks of research institutions and scientists throughout the Global South (Ishengoma, 2016). During the 1970s, these countries were joined by countries with no colonial past (Gaillard, 1994). As the popularity of TRCs continued to spread, the expectations of such ventures changed from finding rapid solutions to development problems in the Global South in the 1950s, to providing technical assistance in the 1960s, towards the familiar form of capacity building in the 1970s (Gaillard, 1994). The 1979 United Nations Conference on Science and Technology marked a turning point in the way in which TRCs were organized. The conference provided new justifications to counter "aid fatigue," which was being experienced throughout the Global South. Research problems should from now on be developed by participants in the Global South, which in turn should develop the means to solve its own issues and problems.

The conference signalled the start of the contemporary approach to TRCs, merging the approaches of problem solving and capacity building, and situating them in the Global South. This was done through the adoption of the Vienna Programme of Action (UN, 1979), which provided a set of characteristics for TRCs. Jacques Gaillard's (1994) seminal article on TRCs evaluated the main funding bodies from Canada, Denmark, Sweden, the US, and the European Union (EU), leaning on the recommendations from the Vienna Programme of Action. Based on his evaluation, Gaillard proposed a set of 12 guidelines for successful TRCs, which, despite having been published over 26 years ago, remains a matrix for how contemporary TRCs are supposed to be run. The popularity of Gaillard's guidelines is evident in the ways in which they have been mirrored in more contemporary principles devised to guide TRCs (Bleck et al., 2018; Dodson, 2017; Fransman et al., 2017; Jentsch & Pilley, 2003; Larkan et al., 2016; Wanni et al., 2010).

In this evaluation, we have chosen to use the updated guide for TRCs by KFPE (KFPE, 2012). Our motivation is that KFPE's principles are not context-specific, e.g., they are not only for higher education collaborations

(Wanni et al., 2010), and do not discuss only the role of the funder (Dodson, 2017). Furthermore, KFPE's principles are transboundary in that they can encompass transdisciplinary collaborations, which span disciplinary fields, particularly those in non-academic contexts. The bulk of transdisciplinary co-production and co-creation lies in "the inclusion of diverse perspectives and actors to better inform knowledge production and decision-making" (Hemström & Palmer, 2020), with the key element being deliberative knowledge integration. Transdisciplinarity, at its core, seeks to be both synoptic and synergistic. It is synoptic in that it seeks to understand the "problem" through the insights of each component part, and it is synergistic in that it also wants to understand the relationship between the parts that produce the whole (Hemström & Palmer, 2020).

Despite the many diverse sets of principles and guidelines, TRCs remain challenging on multiple fronts (Baud, 2002; Brew et al., 2011). This case study seeks to explore the structure of, the actor dynamics within, and activity evaluation of a recently completed TRC, from the inside out. Thus, our evaluation of TRC goes beyond the mere evaluation of outcomes, and, in doing so, contributes to the discussion on the viability of TRCs in future development projects.

3 | CASE-STUDY CONTEXT

This article centres on a TRC, which we shall refer to as "the platform." The platform formed part of an international research and knowledge centre for sustainable urban development ("the centre"). The centre was a 10-year project (2010–2019) funded by a foundation for strategic environmental research in the Northern European ("host") country Sweden, co-financed by its international development agency, alongside the involvement of a consortium of organizations. While the centre's secretariat was based in the host country, the organization ran eight local interaction venues (five major and three minor offices) across four continents. The centre administered many projects, education programmes, and exchange collaborations, including the TRC platform, which engaged two venues: one in Northern Europe (Sweden), representing the Global North (NLIV) and one in East Africa (Kenya), representing the Global South (SLIV).

The TRC platform was established in 2012, being wholly financed by an international development agency. The funding was ring-fenced for TRC activities within the platform, and could not be reallocated to any other project or programme. Initially, this financed seven PhD students (three from NLIV and four from SLIV). Most PhD students had graduated by 2016, and the platform developed into a full-scale collaboration programme, with the overall aim of contributing to sustainable urban development in and across the two contexts.

At this point, we would have liked to have presented a summary of the outcomes that the platform has produced. There was, however, little documentation reporting on the platform's activities and outputs up to 2017. Adequate structures and full transparency were introduced into the platform only during the period in which the present research was conducted, i.e., 2017–2019. That said, even if there had been sufficient documentation it would only have told part of the story—the official version. The voices and experiences of the stakeholders involved directly in the collaboration would be missing. Official reports often focus on results, using a catalogue of trendy jargon terms (Dymitrow & Ingelhag, 2020) which effectively conceal the underlying reality. It is those masked unstructured and wavering interactions which have a decisive influence on the outcome of TRC, which we wanted to capture, analyse, and evaluate in our research.

4 | METHODOLOGY

The research was conducted in two phases. The first phase corresponds to a lengthy *explorative period* (two years), while the second *corroborative phase* consisted of an intensive four-month period, during which the initial findings from the first phase were validated using focused methods of qualitative research. We draw

on a reflexive approach, which is differentiated from traditional forms of evaluation—assessments against pre-specified objectives and deliverables (Mitev & Venters, 2009; Newell & Galliers, 2000; Nowotny et al., 2001). This retrospective methodology enabled us to explore how individuals were involved in and perceived the platform, providing a self-critical "reflexive turn" (Weick, 1999) to draw upon our own experiences in the platform.

The method used during the first phase was autoethnography (Ellis et al., 2010). This explorative phase comprised a two-year period of immersive fieldwork and participant observation conducted between September 2017 and September 2019 as full members of the platform community. Both authors were employed in the platform at the time, as research co-ordinator (Dymitrow) and project leader (Kotze). Data collection took the form of continuous conversations[2] with 45 individuals who spoke in the capacity of professionals working in, or in association with, the TRC platform.

The goal of the second research phase was to corroborate the findings from the explorative phase using more focused methods: semi-structured interviews and surveys conducted with eight participants linked to the TRC centre. The participants were carefully chosen using purposive sampling (Black, 2010) based on the diversity of their roles and work experiences in the TRC. Questions were based around KFPE's principles, which allowed us to frame initial insights into the context of TRCs. The participants were asked to reflect on the relative importance and success of KFPE's principles with regard to our specific TRC. This was coupled with open-ended questions to provide unhindered reflections about the nature of their rankings, such as whether/how they would see the list of principles expanded or condensed.

To triangulate our findings, we employed a content analysis of key documents produced at the centre, including written reflections from former platform PhD students. Old project plans were also used to contextualize the overarching aims of the centre/platform, and the funding opportunities awarded to specific research projects/activities.

The data analysis for this study followed the procedure recommended by Creswell (2007). The first stage of analysis began as discussion, reflection, and the identification of the authors' own experiences in the platform and their conversations with the 45 others involved with it. Memos were written up, and then thematically coded using the KFPE's 11 principles, alongside the interview transcripts, questionnaires, and the associated documents. Moreover, codes were created for the data beyond the KFPE's principles, which had an impact on the inner workings of our TRC case study. These codes were categorized into three themes: (1) transdisciplinarity as a working method; (2) gender degeneration[3]; and (3) authorship within TRC publications. It is these three "absent dimensions" on which we build a theoretically informed discussion.

4.1 | Ethical considerations

There were no relevant concerns in terms of ethical considerations. The TRC centre studied stands for democracy and transparency in its pursuit for new ways of transboundary knowledge production. As such, the TRC centre supports this research—even though it is conducted in an evaluative, occasionally critical, manner. However, as a relatively small organization, details of the participants have been anonymized to ensure confidentiality. After all, the purpose of this research was not to evaluate the TRC platform as such (in the sense of an activity report) but rather *what it stands for*. It is the platform's contribution to TRC as a global approach that

[2]The conversations were for the most part informal, spontaneous chats that took place by the printer or the coffee machine, in the bus or on the plane, during conference breaks, etc. Unlike conventional interviews, which have a scheduled time, preparation, questions, and a goal, conversations (in this context) are unsolicited exchanges of knowledge when people unconditionally and confidentially talk about whatever they want, sharing their own untold stories about the silent triumphs and hidden pathologies of their work situation, and how these affect their everyday lives.

[3]In this context, we use the term gender degeneration to refer to the positioning of women and men which does not contribute to but undermines gender equality efforts.

makes it interesting from an international research perspective. Anonymization was prompted by concerns for the data quality, since more probing and detailed accounts are possible only if full anonymity is assured. Although several informants stated that they could be named, we decided not to do so in order to secure the confidentiality of *all* participants. This resulted in the lack of explicit references to statements made by various informants. This, as with any trade-off, is a limitation of this study; however, in view of its methodological ambitions, it was deemed necessary.

5 | RESULTS AND ANALYSIS

This section presents the results and analysis of this study's corroborative phase, accompanied by our reflections and interpretations compiled during the explorative phase. KFPE's principles of transboundary research are used to structure the findings, with each principle discussed in turn, opening with its key statement. The quotations in bold are from the thumbnail descriptions provided at KFPE's 11 principles website (KFPE, n.d.).

5.1 | "Set the agenda together"

"[A]ll parties must work together towards a shared goal from the very beginning – making sure to include all concerned stakeholders." While appealing, this aim must be achieved against a background where funding is rarely contributed by both parties, and such asymmetry needs to be mediated from the start.

Results show that setting the agenda together was considered both the most important and the most successful aspect of the TRC. As one SLIV-based participant suggested,

> *Agenda setting creates opportunity for identification of the research problem in terms of development problem affecting the society. This way the research output would be responsible to felt needs of the society. The findings would therefore find relevance to the community and would be consumed.*

The downside was that the platform's steering committee comprised five members, including a co-ordinator, four of whom were from NLIV and only one from SLIV. With such an asymmetry, initial talks about upcoming decisions could have been primed before the actual steering committee meetings, reducing the power of the SLIV representative when, for instance, voting on projects. Conversely, the sole SLIV representative in the committee held the absolute power to report on the "SLIV perspective" of the collaboration, leaving the NLIV members with limited means to object and so run the risk of withdrawal. Put differently, since the platform depended on there being an involved actor from the SLIV, the SLIV representative wielded the unspoken power, and pressure, of maintaining the collaboration.

5.2 | "Interact with stakeholders"

"Researchers should involve concerned stakeholders as early as possible." This may be true; however, interaction with non-academic stakeholders is time-consuming and intellectually demanding, and thus often frustrating. This principle is further complicated within TRCs as interactions take place across different geographies and diverse sociocultural backgrounds.

The principles of co-production and co-creation were considered important aspects within the platform given the transdisciplinary way of working championed by the centre. However, its perceived importance cannot be directly linked to success. Although the platform provided a forum for interaction among stakeholders and implementation of subsequent activities, these interactions were hampered by the distance between the two locations

(10,000 km). We interpret this as not only a physical distance, making face-to-face interactions difficult, but also a distance with regard to the communication resources available (Smith et al., 2014). A PhD student within the platform referred to the unreliable nature of internet resources in the SLIV, which affected stakeholders' ability to communicate via Skype or Zoom.

Another, probably more cultural than personal, reported impediment to stakeholder interaction was a noticeable tendency on the side of SLIV participants to put off meetings, cancelling them at the last minute, and non-responsiveness to emails, often for weeks on end, despite repeated reminders. Failing to respect project deadlines was almost standard on the part of the SLIV, although it also happened on the side of the NLIV, especially by partners with close connections to the SLIV. All this had a negative impact on projects' clarity and progress, with stress and frustration being an everyday issue.

5.3 | "Clarify responsibilities"

"Effective partnerships ultimately depend on each partner contributing what they do best." Successful collaborations are reliant on actors being able to identify and carry out activities in which they are skilled. Furthermore, the division of responsibilities should pertain equally to partners from the Global North and Global South.

Reportedly, the platform's loose format was particularly open to a lack of accountability in its early years, exacerbated by a culture of non-reporting on activities, spontaneous and dubious decisions, and not taking responsibility when things went awry or problems came to light. For instance, an NLIV-based former stakeholder, no longer at the centre, could unofficially send a third party to SLIV to initiate a costly project without prior consultation with the steering committee, causing frustration for the third party and the committee. The committee had then no choice but to approve the project out of respect for the third party. And since the project initiator was no longer associated with the centre, they escaped responsibility for their actions.

Another issue raised concerned the malpractice of sending money from NLIV to SLIV *in advance*, which meant there were no guarantees of delivery or of its quality on behalf of SLIV. This was exacerbated by NLIV's unwillingness to come across as being insensitive, for instance by stipulating in the contract the obligation to return the funds on the failure to deliver.

5.4 | "Account to beneficiaries"

"Relevant, meaningful research is accountable not only to funders, but also to society and the scientific community." Within the platform, upwards reporting was carefully prepared prior to annual meetings with its funders. The authors' experience of this process is that although the annual meetings collated a vast amount of information on the physical and published platform outcomes, the funders' committee also attempted to gain insight into the researchers' experiences.

One significant group that the platform needed to be downwardly accountable to consisted of those who received funding from the programme. As several members experienced, however, there was little accounting to the beneficiaries by the platform. This worrying development prompted the platform's committee to organize a seminar/workshop in 2019, mandatory for all platform beneficiaries. The event was motivated by challenges encountered during the collaboration with regard to gender and cultural (in)sensitivity; in essence, the cultural differences were so significant that they impeded effective communication, equal distribution of resources between women and men, choice of approach to project planning and execution, and so on. The event never materialized due to issues in logistical planning and a perceived lack of drive at the centre to reignite the event following the death of a keynote speaker.

As for beneficiaries in the wider society, these were not included, partly due to the scope of this research and partly due to the structure and scope of the platform itself. While it is true that many of the sub-projects funded by the platform had beneficiaries within the wider society, the aim of the platform was to generate academic networks for transdisciplinary methods.

5.5 | "Promote mutual learning"

"Monitoring and evaluation are useful not only for general stock-taking …, but also for internal ex ante assessment and navigating the future." Several administrators within the platform suggested that the platform would not meet many of KFPE's principles because it was in its wrap-up phase. Another possible reason for the low compliance was the platform's umbrella format, with no unifying leader or overall plan. This critique aligns with KFPE's promotion of long-term mutual learning, which—to be successful—must be combined with short-term accountability measures (monitoring and evaluation).

Furthermore, new people had been repeatedly given responsibility for the leadership and co-ordination of the programme, with no handover of knowledge about the lessons learned. First, in 2017, with a change of leadership and co-ordination, a more rigorous and transparent approach was introduced to the approval of projects, planning, responsibilities, and budgeting. All mapping had to be done from scratch, taking time away from the creative tasks. With such a lack of structure, it is impossible to speak of mutual learning, perhaps other than personal insights on how a transboundary collaboration should *not* look.

5.6 | "Enhance capacities"

"Capacity strengthening and capacity development are long-term processes that are key to sustainable knowledge production." Reflecting on their own personal capacities built through engagement within the platform and collaboration with a counterpart in NLIV, one SLIV PhD student comments:

> *I wasn't sure of my capability in research work up until I started collaborating and working closely with a researcher who allowed me space by encouraging me in the field of research, which in turn triggered and awoke my capability in the area of research.*

Within the platform, capacity building was predominantly attempted through the PhD student exchange programme, although this was limited due to asymmetries of power, practice, and recognition. There are indications that the PhD student exchange has acted as a trade-off between the NLIV and SLIV, which allowed the NLIV to retain power over the resources and the SLIV to enhance its capacity through the progression of its own PhD students. Predominantly, NLIV students travelled to the SLIV to conduct research, while SLIV students travelled to the NLIV only to attend conferences and sample the resources that the NLIV universities had to offer. Since then, several NLIV PhD students have been able to return to the NLIV, graduate, and continue working with the methodology that dominates the European/Western context, and this has clearly benefitted both themselves and their subsequent research collaborators. Unfortunately, the same cannot be said for their SLIV counterparts.

5.7 | "Share data and networks"

"Transparency and unrestricted flows of information are essential in research partnerships aimed at societally relevant outcomes." In our results, however, the discussion of the sharing of data and networks was dominated by the NLIV, contrary to recommendations.

An SLIV PhD student suggested that the biggest benefit of sharing data and networks is to stakeholders and partners in the NLIV. However, an NLIV PhD student deemed the sharing of data to be problematic in the context of the General Data Protection Regulation (GDPR) and ethical issues concerning data sharing that warrant particular attention in the NLIV. This is further complicated by discussions of how to transfer ethical guidelines and good research practices from the NLIV to research situations in the SLIV (Brew et al., 2013).

As for networks, a recurring inference in the NLIV was that basically the same people kept coming back to ask for project money, sometimes for projects only tangentially related to the scope of the platform. Such projects could be totally NLIV- or SLIV-specific, with the sole point of intersection being some insignificant and inexpensive workshop added to the budget, to which a person from the *other* LIV was invited. Another issue raised was the launching of projects, which were so esoteric to the NLIV or SLIV context that no useful transboundary knowledge sharing could possibly take place. Another critique was the preferred use of established actors on the market within projects, who—while knowledgeable in their specific fields of expertise—"pushed" their own (narrow) interests, set the agenda, and dominated the structure from within by successively learning what exactly needed to be said and stressed to obtain consecutive funding. This cannot be said to broaden the networks, and only serves the personal ambitions of the limited number of academics within the platform for its duration.

5.8 | "Disseminate results"

"Research findings must be translated into the 'formats and languages' of each target audience … they must be fed into the proper communication channels, such as scientific journals, policy briefs, or local media." In TRCs, this is not a simple task as it involves a diverse range of actors and stakeholders, spanning different geographies, cultures, and languages.

Participants considered the principle of disseminating results to be highly successful within the platform, influenced by the overriding focus on journal articles. Attendance at conferences was routinely included in project plans submitted by the NLIV, due to a plethora of conference opportunities in the European context, and ease of travel between European nations. The same cannot be said of the SLIV stakeholders, particularly the SLIV PhD students, whose opportunities to travel were limited by the comparatively high costs involved, and logistics of visa applications.

A challenge when disseminating results is to ensure that the different formats and languages are appropriate for different target audiences. At the platform, however, the dissemination did not meet the principles as they were only available to institutions that could fund access. Moreover, articles were almost exclusively published in English. Both factors further limited contributions being made by SLIV researchers.

5.9 | "Pool profits and merits"

"The benefits of any research partnership should be distributed as fairly as possible among all involved researchers." KFPE's definition of this principle refers to the merits achieved through authorship, particularly the equal distribution of authorship, and to which journals articles are submitted. Within our case, this was problematic.

Working within the centre's dominant methodology of transdisciplinarity implies the need for many co-authors in research outputs. At the same time, all co-authors must meet the criteria for co-authorship, as set by both the journals in which the work would be published and the ethical standards to which academics adhere. However, to give the appearance of equality between the NLIV and SLIV, on occasion, co-authorships were creatively adjusted. For example, NLIV partners could undertake the bulk of the authorship duties, with minor revisions to the final drafts coming from the SLIV, with the expectation of being added as a "co-author."

5.10 | "Apply results"

"Implementing research results effectively requires not only speaking the language of end users, but also translating and contextualising findings in a manner suitable to different levels of intervention." KFPE's definition of this principle refers to research collaborations moving beyond being results-oriented to become implementation-oriented. This implies that the dissemination of results must be followed by implementation and application. However, since the final phase of the platform was only entered into during the final six months of the project, it made implementation impossible. Although this is symptomatic of working in academic projects, that there is rarely enough time to work through to this phase let alone reflect upon it (Fred, 2020), in our study, it reflected the platform's structure, which started with PhD students, thus a step "below" where other research collaborations might have started.

Moreover, it is impossible to apply results if the scholarly research is of poor quality, non-transferable between sociocultural contexts or written in a highfalutin and highly generalized manner—a level of abstraction many transboundary research endeavours unfortunately adopt.

5.11 | "Secure outcomes"

"Long-term targets should be included both in strategic planning and in the design of project and programme cycles." Although the platform had been running for a decade, secured within the NLIV centre's structure, it was still a project with time-bound funding. This posed a challenge to the principle of securing outcomes in the long term. Furthermore, the principle of securing outcomes was not of great importance, even though the platform was initiated as a PhD student exchange programme. As a former Swedish PhD student from the platform reflected:

> *There's been a lack of infrastructural support to secure the continuation and long-term development of research activities. The PhD students have had the responsibility to secure this on an individual level, which brings focus to a lack of facilitation from the LIVs.*

Research collaborations build individual capacity, particularly those of PhD students and junior academics, and they provide the means for individuals to become more mobile (Ishengoma, 2016). This, however, often results in internal brain drain from academic institutions, where previous collaborators have acquired the skills, knowledge, and experience needed to secure positions in private companies or, more commonly, other projects funded by the NLIV in their home countries. External brain drain is also often exacerbated by exchange programmes that form part of TRCs (Barrett et al., 2011; Baud, 2002) and, as in our case study, contradicts the overarching aims of TRCs.

The absent dimensions

Having presented the results of our evaluation of the TRC against KFPE's 11 principles, we now present three recurring themes in our results, which are not adequately covered by KFPE: method, gender, and authorship. These are deemed to have had a negative impact on the platform's performance and therefore the perceived success of the TRC as such.

5.12 | "Transdisciplinarity as a working method"

One factor that does not feature in KFPE's principles, but which has been detrimental to the platform's success, was the focus on transdisciplinary research, driven by the ambitions of the aims of the centre. At the centre, a transdisciplinary approach meant the inclusion of different types of knowledge production for social change, based not only on the integration of knowledge from different disciplines (interdisciplinarity) but also on the

inclusion of values, knowledge, know-how, and expertise from non-academic actors (Klein, 2010). As such, transdisciplinarity was seen as an alternative to scientific research on social and environmental issues (Polk, 2014).

However, the ambition of transdisciplinarity within the platform, and the centre more widely, remained lofty, were often unattainable, and were consistently used in a tokenistic manner as a means to obtain funding. As one participant commented:

> *Principles, such as these, risk becoming empty mantras for justifying this type of research if the active work of making sure what should be done actually is done not in practice, or the systems in which transdisciplinarity works makes it difficult to reach up to the principles.*

Similar instances of awareness of its assets and limitations are evident within the platform's NLIV branch, who knew they needed the SLIV to build further on the transboundary end of their activity, and had to tolerate certain idiosyncrasies of the NLIV to sustain the collaboration. This was instead justified by reiterating the precarious situation of the SLIV in terms of developmental lag and greater need for patience and tolerance, rather than seeing it as being the result of personal shortcomings of individuals or differences in cultural approaches to collaboration. While the platform did produce (broadly defined) results, the intertwining of both attitudes was counterproductive to meaningful collaboration, and ran the risk of watering down what "transdisciplinarity" is meant to address, or that the concept is exploited for non-sustainable purposes.

5.13 | "Gender degeneration"

A second important theme that we found lacking in KFPE's principles was the consideration of gender (Kotze, 2020). Our results suggest that unequal power relations within the platform also took the form of gender inequalities, with the NLIV and SLIV experiencing distinctly different gender skews. For instance, among the 13 SLIV authors scheduled for the platform's scientific articles for 2018–2019, there were 12 men and only one woman. That same female scholar was "used" extensively, often perfunctorily, as the "posterchild" for "the woman PhD from the Global South" on various occasions. Conversely, the gender composition in the NLIV was skewed in the other direction, with only one male employee, one of the authors (by the end of 2019), an imbalance that did not seem to raise intellectual doubts. In fact, a discrimination-awareness workshop was even organized for the NLIV staff.

5.14 | "Authorship within TRC publications"

This case study has emphasized the *visible problems* of a TRC, which are often masked by the high level of physical outputs, namely published articles, a practical point absent from KFPE's principles (Castilla, 1997). Within the platform, honorary authorship—a practice stemming from hierarchical or capitalist academic structures—was practised, notably by senior researchers or people (academics or otherwise) in positions strategic to a project. Since the clause against honorary authorship (and ghost authorship) had been written into the platform's policy on project plans in 2017, the authors who indulged in such practices circumvented it by literally adding or changing a few words (non-meritory contribution) to maintain authorship (Pfleegor et al., 2019).

Another problem was the phenomenon of "non-revised authorship," meaning that authors initially scheduled to co-write an article, but who effectively did not contribute to it, were *not* removed from the authors' list. This practice was most common when co-authors from the SLIV retained authorship in order to meet the platform's collaborative ambitions and outcomes, and to avoid confrontation. Moreover, authors from both the NLIV and SLIV were sometimes later added to a poor article (without committee approval) to "save a sinking ship," while the main author(s) retained full remuneration. This happened without accounting for whether the funds paid were

transferred locally to the actual authors. As such, the emphasis on equal recognition of both sets of partners within the outcomes has meant that the processes of authorship and publication have succumbed to manipulation.

Furthermore, the quality of the disseminated results has not been willingly discussed. Predatory journals and other questionable publishing outlets have been widely used in the past. Despite some "tightening up," most researchers did not adhere to the journals approved in the project plans but swapped at the last minute to some other outlet offering easy publication, without notifying the committee. Moreover, as the contract stipulated that full reimbursement to the author(s) could only take place once an article was "submitted" (rather than "published"), it justified such behaviours. This, in turn, had a negative impact on the quality of the disseminated results.

6 | DISCUSSION

While our research focused on an evaluation against KFPE's 11 principles of TRCs, we found that some were more relevant than others to our TRC case study. The initial structure of the platform, as a PhD student exchange, and the fact that the platform was (at the time of this research) in its final evaluation stage, meant that principles of accounting to beneficiaries (4), promoting mutual learning (5), applying results (10), and securing outcomes (11) were less relevant. On the flip side, the platform's focus on the development of PhD students meant that enhancing capabilities (6) was relevant to our case study.

Moreover, clarifying responsibilities (3), sharing data and networks (7), disseminating results (8), and the pooling of profits and merits were of significant relevance to our case study because of their negative impact on the platform's success. However, given that our TRC acted as a PhD exchange programme and then a de facto funder of transdisciplinary projects involving both the SLIV and NLIV, the principles were not easily understandable within our context.

We have further identified three issues, which are not adequately covered by KFPE's principles: transdisciplinarity as a working method; gender degeneration; and the exploitation of authorship within TRC publication. Our case study has demonstrated how these "sins" can be committed by partners in both the Global North and the Global South. Deemed *reverse exploitation* (Castilla, 1997), these undesirable traits have become learned behaviours for partners in the Global South, owing to bad practices of the Global North inherent within TRCs. Furthermore, and perhaps controversially, Castilla (1997) suggests this reflects a disconnection in power relations inherent in TRCs.

Transdisciplinarity has become the driving force in many collaborative contexts, including our case study, given its potential to tackle complex problems in innovative ways. It allows for collaboration between different disciplines and stakeholders to develop creative approaches and build the foundations for socially relevant research. However, it is these key characteristics that present challenges when working in a transdisciplinary way.

The transdisciplinary methodology has had an impact on actor recruitment and behaviours within the platform. Not only was the transdisciplinary method strongly encouraged as the overarching methodology for the initial PhD students, but the subsequent sub-projects funded under the platform's umbrella were also required to include elements of transdisciplinarity, co-creation, and co-production (see Smit et al., 2020). The motivation for ring-fencing the funds for transdisciplinary research was to both reflect the overarching method of the centre and to ensure that transdisciplinary ways of working were awarded funds, which could otherwise be difficult to come by (Bromham et al., 2019).

Nearly every sub-project proposal, from the North and South, could be "worked around" to include a degree of transdisciplinarity, without any evaluation of ways of enactment and funding. As such, the inclusion of the method became largely tokenistic; it provided a means of securing funding rather than of contributing to the wider field of transdisciplinary research. Moreover, unlike other mono-disciplinary academic fields, the research practice, and quality standards to be adhered to in transdisciplinary research are not clear-cut (Lang et al., 2012). Taken together, the tokenism in employing a specific methodology and the lack of clear practical quality standards to be

adhered to within such a methodology can result in poorly conducted transdisciplinary research and thus ambiguous research outcomes. Unsurprisingly, several papers based on transdisciplinary research, undertaken within the case-study TRC, have found it hard to find a suitable journal for publication, leading to practices such as author manipulation and publication in predatory journals.

While not unique to TRCs, ethical issues surrounding authorship and publication have been circulating within academia for the last few decades (Bennett & Taylor, 2003; Katz & Martin, 1997; Pfleegor et al., 2019; Smith et al., 2014). Within the TRC context, issues concerning authorship and publication tend to become magnified due to the power dynamics and the focus on equality of outcomes that pervade TRCs (Katz & Martin, 1997). Transdisciplinarity as a method can also often mask the diversity of unique disciplines that sit under the umbrella of the methodology itself (Reich & Reich, 2006). If the metaphor of the transdisciplinary umbrella is extended to bring light on the individual actors who sit under it, we have shown that there is a gender inequality, not in overall numbers of men and women working within the TRC, but with regard to whether they are situated within the Global North or the Global South. Gender inequality within TRCs cannot be fought either by "overcompensating" and mostly employing women in the Global North, or by maintaining patriarchal structures in the Global South while making tokenistic displays of—for instance—one, internationally mobile, woman to tick that box. As long as the principles for TRCs fail to specifically address the issue of gender, similar "degenerations" can be expected to thrive.

Moreover, a preoccupation with including the Global South in the research agenda, not because it is considered contributory in its own right (a merit-based approach—which is perfectly doable) but because it "looks good" on the outside, is unfortunately still widely practised (Bromham et al., 2016; Gibson et al., 2019). This may be due to the collaboration administrators not taking sufficient time, not having the necessary knowledge, or not reaching for the right expertise to identify the basis for meaningful TRCs, and instead relying too heavily on an essentialist understanding of its values.

Although it is acknowledged that the designation of roles at the start of a TRC, which not only meet the needs of the TRC but also the capacity of the individuals fulfilling them, the diversity of stakeholders within a TRC is critical to the TRC's success. There is still a debate regarding how much "closeness" should be sought between the stakeholders within a TRC, for example, seeking stakeholders who are active within transdisciplinary research activities. On the one hand, a closeness may be sought among the stakeholders of a TRC in order to reduce personal conflict and organizational tensions, but too much closeness between stakeholders and homogeneous scientific interests can foster "group thinking," which supresses innovation. On the other hand, collaborative tensions and scientific debate between academic disciplines and methods may catalyse transdisciplinary discoveries, and mitigate group thinking that might produce excessive agreement among researchers (Roux et al., 2010; Stokols et al., 2005).

While working in a TRC seems to strike a balance in establishing diversity and debate among researchers, the fact that the methodology is employed in such an extreme manner may inhibit spontaneity and innovation, thus hindering the long-term success of transdisciplinary research in exchange for short-term personal goals. This manner of working, in part, is due to an unreflective, often politicized, inclusionism within TRC collaborations, which cautions us to abstain from being too narrow, let alone normative. The side effect is that bowing to social justice may give way to "wicked solutions" in terms of academic rigour and intellectual debate (Collins, 2009). This ushers in the difficult question: what is the best way to define, understand, and resolve societal needs—through plurality or through competence?

As our and others' results suggest, research within TRCs can sometimes be characterized as being "purchased" by the funders. Effectively, the funders become clients, and their needs, as well as those of the users of the research, must be met. Moreover, researchers and stakeholders, who themselves are directly employed within TRCs, have a financial and professional interest in their success. In order to meet the needs of these three parties (funders, stakeholders, and society), they must all accept joint accountability and form an effective knowledge partnership (Roux et al., 2010). A knowledge partnership conceptualized in this way differs from the characterization of a TRC

where the funder acts like bookends to the project, providing money and conducting final evaluations, without truly understanding (or acknowledging) what happens in the middle.

Against this characterization, it is suggested that TRCs adopt a broad accountability framework (Roux et al., 2010), which would develop a higher level of commitment between research partners that goes beyond the academics and administrations who are formally involved in the TRC, but are also themselves the end users of the research and the funders. While our case study has identified the impact of the inner workings of the TRC on its outcomes and deemed success, we share the view that the overall responsibility for the success of TRCs also needs to be adopted by the end users and funders.

7 | CONCLUSIONS

TRCs are complex. Their crossing of cultural, disciplinary, and geographical boundaries provides both the means through which TRCs are able to address wicked global problems, but also create a range of challenges that still blight attempts at TRC. Great concepts come with great responsibility, and sheer goodwill, wits, and determination are not always enough, in that both endogenous and exogenous factors keep TRCs balancing on the precipice of impending failure.

Recognizing that TRCs need to be evaluated more as a process/experience than as an ideal/rhetoric, our research focused on the inner workings of a TRC from the perspectives of "insiders" from the Global North and the Global South. However, the framing of our evaluation against KFPE's 11 principles proved to be problematic owing to their aspirational, and often rather cryptic, descriptions.

Within our contemporary research case study, the structure of the TRC proved to be a further area open for exploitation rather than a means of strengthening capacity in the Global South. Therefore, we recommend the following:

- First, evaluations of TRCs must include the experiences of TRC actors and not only the outcomes they produce. TRCs are influenced by contextual factors, and the factor with the highest degree of influence is the interplay between the TRC actors. This interplay in turn reflects the underlying power imbalances and lingering inequalities between the Global North and the Global South, albeit in different shapes and modalities.
- Second, transdisciplinarity cannot be viewed as the only way to solve general development issues but must be handled in such a way that does not mask underlying issues of inequality and poor ethics. We have elucidated that the power a TRC is able to generate for the Global South is not always used to produce more equal partnerships. Rather, the TRC ends up responding to the needs of the Global South partner's local research and development needs, but indirectly fuels the research agenda set by the Global North, which dictates how and where funds are allocated.
- Third, the ring-fencing of funding for a specific purpose or TRC does not negate the need to scrutinize the activities undertaken in its name. The funds being ring-fenced by the funder for the sole use within the designated TRC is likely to lead to a greater level of financial exploitation, and less scrutiny from actors who are not linked to the TRC. We contend that the addition of an overarching methodological focus on transdisciplinarity allows for ring-fenced funds to be allocated to actors who may not be genuinely interested in TRC or in contributing to the broader scope of transdisciplinary research.

Although innovative funding models have sought to redress some of the inequalities that are inherent within TRCs, there is a significant failure. This failure cannot just be laid at the feet of the administrative and institutional structures, but also of the individual actors involved with TRCs. TRCs, in their current format, run the risk of becoming a self-fulfilling prophecy. Furthermore, TRCs not only reproduce the intrinsic inequalities based on historical influences, but also generate new forms of inequality between institutions (and individuals) in the Global

South who are better at manoeuvring TRCs for their own (institutional or professional) gains. Therefore, greater and more stringent efforts need to be established if we truly want to ensure that professional codes of practice and ethics are implemented in the entirety of the TRC—by all partners equally.

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DATA AVAILABILITY STATEMENT

Data available on request due to privacy/ethical restrictions.

ORCID

Shelley Kotze https://orcid.org/0000-0002-1737-5728
Mirek Dymitrow https://orcid.org/0000-0002-6936-342X

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